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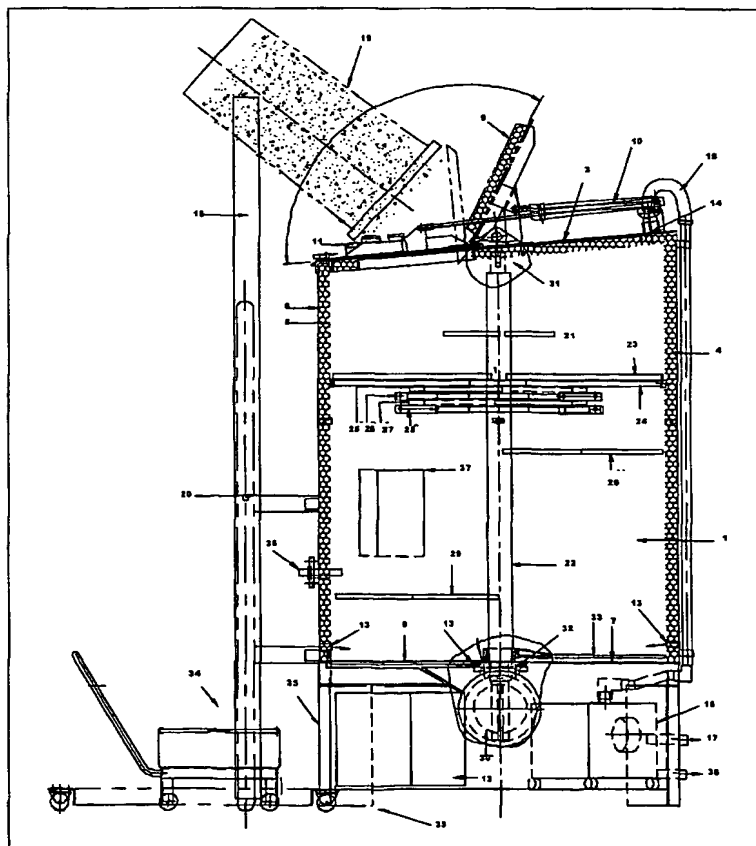
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(54) Title: ORGANIC WASTE TREATMENT APPARATUS



(57) Abstract: A composting system including a vertically-orientated vessel with a range of mechanisms attached to a vertically oriented central mounted rotating shaft, including rotatable size reduction blade(s), agitation mechanism(s), and discharge blade/mechanism(s). The composting system includes internal size reduction mechanism for reducing the size of waste and/or organic material introduced to the vessel. The composting system includes a loading hatch through which material may be introduced into the vessel, a discharge hatch through which material may be removed from the lower region of the vessel, and a source of air to maintain aerobic conditions within said vessel. When the apparatus is in use, material introduced to the vessel moves from the upper region of the vessel gravitationally and via agitation through a zone of size reduction to the lower region of the vessel. Process conditions within the vessel are controlled via intervention by an operator and via electronic control mechanism, which can monitor operating conditions such as temperature and loading rate (for example), to manage air injection, mechanical agitation and size reduction such that composting proceeds efficiently and at an optimal rate.

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